



U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE  
INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT  
(Use several sheets if necessary)

ATTY. DOCKET NO.  
I-2-0173.5US

SERIAL NO.  
10/080,073

APPLICANT  
De et al.

FILING DATE  
2/21/2002

GROUP  
Not Yet Known

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

RECEIVED

MAY 30 2002

TRANSLATION

Technology Center 2600

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>RW</i>	AA	Ramjee Prasad, Werner Mohr and Walter Konhauser editors, <i>Third Generation Mobile Communication Systems</i> , Artech House, Boston, 2000.
<i>RW</i>	AB	Anja Klein, Ghassan Kawas Kahle and Paul Walter Baier, "Zero Forcing and Minimum Mean-Square Error Equalization for Multiuser Detection in Code-Division Multiple-Access Channels", <i>IEEE Trans. on Vehicular Technology</i> , Vol.45, No. 2, pp. 276-287, May 1996.
<i>RW</i>	AC	Nora Klein, "Data Detection Algorithms Specially Designed for the Downlink of CDMA Mobile Radio Systems", <i>IEEE 47th Vehicular Technology Conference</i> , pp. 203-207, May 1997.
<i>RW</i>	AD	H.R. Karimi and N.W. Anderson, "A Novel and Efficient Solution to Block-Based Joint-Detection using Approximate Cholesky Factorization", <i>Personal, Indoor and Mobile Communications PIMRC' 98</i> , Conference Proceedings, Vol. 3, pp. 1340-1345, Sept. 1998, Boston, MA.
<i>RW</i>	AE	ETSI STC SMG2 Layer 1 Expert Group, "Low Cost MMSE-BLE-SD Algorithm for UTRA TDD Mode Downline", Tdoc SMG2 UMTS L1, Helsinki, Finland, Sept. 1998.
<i>RW</i>	AF	3G TS 25.102 V3.4.0, 2000-10, "UTRA (TDD) Radio Transmission and Reception", 3rd Generation Partnership Project, Technical Specification Group RAN WG4, Annex B., pp. 37.

EXAMINER

*Robert W. Wilson*

DATE CONSIDERED

*1/24/06*

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609;  
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Sheet 1 of 1

FORM PTO-1449

**U.S. DEPARTMENT OF COMMERCE  
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2681

## **U.S. PATENT DOCUMENTS**

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## FOREIGN PATENT DOCUMENTS

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

<i>RNN</i>	AG	Benvenuto N. et al. "Joint Detection With Low Computational Complexity For Hybrid TD-CDMA Systems" VTC 1999-Fall. IEEE VTS 50th. Vehicular Technology Conference. Gateway to the 21st Century Communications Village. Amsterdam, Sept. 19-22, 1999, IEEE Vehicular Technology Conference, NY
<i>MW</i>	AH	Vandaele P. et al. "Recursive Total Least Squares Algorithm for Single-User Blind Channel Equalisation: IEE Proceedings: Vision, Image and Signal Processing, Institution of Electrical Engineers, FB, Vol 147, No. 3, 23 June 2000

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Robert J W Wilson

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Sheet 1 of 1

<p>FORM PTO-1449</p> <p>U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE</p> <p>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</p> <p>(Use several sheets if necessary)</p>	<p>ATTY. DOCKET NO. I-2-0173.5US</p> <p>APPLICANT De et al.</p> <p>FILING DATE 2/21/2002</p>	<p>SERIAL NO. 10/080,073</p> <p>GROUP 2681</p>
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## FOREIGN PATENT DOCUMENTS

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

AG	Weidong Yang et al., "Fast Joint Detection with Cyclic Reduction Exploiting Displacement Structures", <u>2000 IEEE International Conference on Acoustics, Speech, and Signal Processing</u> , Istanbul, Turkey, 5-9 June. Proceedings (Cat. No. 00CH37100),
AH	Proakis John G., "Digital Signal Processing", Macmillan Publishing Company, New York, NY, 1992, pg. 835, para. 11.3.1, page 890, para. 12.3.2
AI	Vollmer et al., "Joint-Detection Using Fast Fourier Transforms in TD-CDMA based Mobile Radio Systems", <u>International Annual Conference of ICT</u> , 1999, pages I-7, page 1, para. I, page 2, para. II, page 3, para III, page 4, para IV.
AJ	Pigeonnat Y., "Alternative Solutions for Joint Detection in TD/CDMA Multiple Access Scheme for UMTS", <u>IEEE Signal Processing Workshop on Signal Processing Advances in Wireless Communications</u> , May 9, 1999, pages 329-332, page 329, para. 2.

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 <b>U. S. DEPARTMENT OF COMMERCE</b> <b>PATENT AND TRADEMARK OFFICE</b>	<b>DEC 27 2005</b> <b>FORM PTO-1449</b>
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<b>APPLICANT</b> <b>De et al.</b>	
<b>FILING DATE</b> <b>February 21, 2002</b>	<b>GROUP</b> <b>2687</b> <b>2661</b>

## **U.S. PATENT DOCUMENTS**

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<i>err</i>	Ramjee Prasad, Werner Mohr and Walter Konhauser editors, <i>Third Generation Mobile Communication Systems</i> , Artech House, Boston, 2000.
<i>J</i>	Anja Klein, Ghassan Kawas Kalleh and Paul Walter Baier, "Zero Forcing and Minimum Mean-Square Error Equalization for Multiuser Detection in Code-Division Multiple-Access Channels", <i>IEEE Trans. on Vehicular Technology</i> , Vol.45, No. 2, pp. 276-287, May 1996.
<i>J</i>	Naja Klein, "Data Detection Algorithms Specially Designed for the Downlink of CDMA Mobile Radio Systems" <i>IEEE 47th Vehicular Technology Conference</i> , pp. 203-207, May 1997.

EXAMINER <i>Robert M. Wilson</i>	DATE CONSIDERED 1/24/96
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U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. I-2-0173.5US	SERIAL NO. 10/080,073
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
		H.R. Karimi and N.W. Anderson, "A Novel and Efficient Solution to Block-Based Joint-Detection using Approximate Cholesky Factorization", <i>Personal, Indoor and Mobile Communications PIMRC'98</i> , Conference Proceedings, Vol. 3, pp. 1340-1345, Sept. 1998, Boston, MA.	
		ETSI STC SMG2 Layer 1 Expert Group, "Low Cost MMSE-BLE-SD Algorithm for UTRA TDD Mode Downline", Tdoc SMG2 UMTS L1, Helsinki, Finland, Sept. 1998.	
		3G TS 25.102 V3.4.0, 2000-10, "UTRA (TDD) Radio Transmission and Reception", 3rd Generation Partnership Project, Technical Specification Group RAN WG4, Annex B., pp. 37.	
		Lang Tong; Guanghan xu; Kailath T: "Blind identification and equalization based on second -order statistics: a time domain approach", IEEE Trans. Inf. Theory (USA), IEEE Transactions on Information Theory, March 1994, USA, ISSN 0018-9448, VOL-40, NR 2, pages 340-349	
		Benvenuto N. et al. "Joint Detection With Low Computational Complexity For Hybrid TD-CDMA Systems" VTC 1999-Fall. IEEE VTS 50th. Vehicular Technology Conference. Gateway to the 21st Century Communications Village. Amsterdam, Sept. 19-22, 1999, IEEE Vehicular Technology Conference, NY	
		Vandaele P. et al. "Recursive Total Least Squares Algorithm for Single-User Blind Channel Equalisation: IEE Proceedings: Vision, Image and Signal Processing, Institution of Electrical Engineers, FB, Vol 147, No. 3, 23 June 2000	
		Yang et.al., "Fast Joint Detection with Cyclic Reduction Exploiting Displacement Structures", 2000 IEEE International Conference on Acoustics, Speech and Signal Processing, Istanbul, Turkey, June 2000	
		Proakis et al., "Digital Signal Processing", Macmillan Publishing Company, New York, NY, 1992, p. 835, para. 11.3.1, p. 890, para. 12.3.2	
		Vollmer et al., "Joint-Detection Using Fast Fourier Transforms in TD-CDMA-Based Mobile Radio Systems". International Annual Conference of ICT, 1999, pp. 1-7, p. 1, para. 1, p. 2, para. II, p. 3, para. III, p. 4, para. IV.	
		Pigeonnat, "Alternative Solutions for Joint Detection in TD/CDMA Multiple Access Scheme for UMTS", IEEE Signal Processing Workshop on Signal Processing Advances in Wireless Communications, May 1999, pp. 329-332, p. 329, para. 2.	

EXAMINER <i>Robert F. Wilson</i>	DATE CONSIDERED 1/24/06
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